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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,205	02/13/2004	Terrance Dean Maxwell	58029-147	5770

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EXAMINER

COLLINS, GIOVANNA M

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/777,205

Applicant(s)

MAXWELL ET AL.

Examiner

Giovanna M. Collins

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 34-38 is/are rejected.
- 7) ☐ Claim(s) 26-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 5/21/04, 9/7/04, 12/14/04, 3/18/05,

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 and 34-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Harvey et al. 5,419,395.

Harvey discloses (see Figs. 2 and 4-5) a variable gauge drilling apparatus having an apparatus housing (24), a plurality of interchangeable engaging devices (40,40',40") having different sizes for mounting to the housing (see col. 5, line 60-col. 6, line 12), a universal borehole engaging device mount (at 27) to accept any of the interchangeable engaging devices.

Referring to claim 2, Harvey discloses the mount comprises a pocket (at threads lower section of drill string).

Referring to claim 34, Harvey discloses a method for assembling a variable gauge drilling apparatus comprising selecting an apparatus housing (24), selecting a selected rotation restraining device (40) from a plurality of interchangeable devices (40',40") having different sizes, and mounting the selected rotation restraining device (40) on the housing using a universal rotation restraining mount (at 27).

Referring to claim 35, Harvey discloses the housing (24) is smaller than the bore hole size (see Fig. 3).

Referring to claims 36-37, Harvey discloses selected rotation restraining device (40) is selected to provide a selected drilling apparatus to engage the borehole (see fig. 3 and see col. 5, line 60-col. 6, line 12).

Referring to claim 38, Harvey discloses selecting a second rotation restraining device (40') having a different size compatible with a borehole of a second size different from the first borehole (fig. 4 and col. 5, line 60-col. 6, line 12) and muting the second rotation restraining device using the universal rotation restraining mount (at 27).

3. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson 3,572,450.

Thompson discloses (figs. 2 and 3a) a variable gauge drilling apparatus having an apparatus housing (9), a plurality of interchangeable engaging devices (6) having different sizes for mounting to the housing (see col. 5, lines 55-66), a universal borehole engaging device mount (7) to accept any of the interchangeable engaging devices.

Referring to claim 2, Thompson discloses the mount comprises a pocket (7).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3672

5. Claims 1-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Dedora et al. 5,447,200 in view of Harvey '395 or Thompson '450.

Dedora discloses a variable gauge drilling apparatus having an apparatus housing (around element 50), a plurality of engaging devices (20) to the housing (see col. 5, line 60-col. 6, line 12), a universal borehole engaging device mount (pocket at 46) to accept any of the interchangeable engaging devices. Dedora does not disclose the engaging devices have different diameters that are interchangeable. Harvey (see col. 5, line 60-col. 6, line 12) and Thompson (see col. 5, lines 55-66) teach having interchangeable engaging devices having different sizes to allow the same apparatus to be used in various sized borehole and use the same housing. As it would be advantageous to use the same housing and interchange a few parts when using different sized boreholes it would be obvious to modify the apparatus disclosed to have interchangeable engaging devices having different sizes in view of the teachings of Harvey and Thompson.

Referring to claim 2, Dedora discloses the mount comprises a pocket (where element 45 sits).

Referring to claim 3, Dedora discloses a plurality of engaging devices (see fig. 5) and each device is an assembly (45) for mounting in the pocket.

Referring to claim 4, Dedora discloses a securing mechanism (see fig. 3, ring to left of element 47).

Referring to claims 5 and 7, Dedora discloses an assembly housing (at 45) and plurality of rollers (46).

Referring to claim 6, Dedora discloses an assembly housing size (at 45) and the assembly housing size defines the device size.

Referring to claims 8-9, Dedora discloses the assembly has a biasing member (47) from moving the restraining member (46) from a retracted to an extended position.

Referring to claim 10, Dedora discloses a plurality of assembly housings (45) and a plurality of pockets (where element 45 sits).

Referring to claims 11-12, Dedora discloses a plurality of fasteners (threaded rings to left of element 47).

Referring to claims 13-14 and 21, Dedora disclose a securing mechanism with at least a plurality of underlying surfaces on the rotation restraining assembly and a plurality of complimentary overlying surfaces on the mount (at threads to left of element 47).

Referring to claims 15-16, Dedora discloses an axially movable ring that has the overlying surface (threaded ring to left of element 47).

Referring to claim 17, Dedora discloses the underlying surface on the rotation restraining assembly is composed of an overcut angular surface and the overlying surface has a complimentary undercut angular surface.

Referring to claims 18-19, Dedora discloses an axial movable member (threaded sleeve) and the overcut angular surface and undercut angular surface are urges into engagement by axial movement of the axially moveable member.

Referring to claim 20, Dedora disclose an urging shoulder (shoulder near flexible ring above element 47).

Referring to claims 22, Dedora disclose an abutment ring and a locking ring (rings to left of element 47).

Referring to claim 23, Dedora disclose the an abutment ring (above element 47) is between the locking ring and the rotation restraining assembly.

Referring to claim 24, Dedora discloses the abutment ring is slidably positioned and the locking ring is threaded to the apparatus housing (above element 47).

Referring to claim 25, Dedora discloses the abutment ring (above element 47) is more deformable than the rotation restraining assembly and the locking ring.

Allowable Subject Matter

6. Claims 26-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 571-272-7027. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


gmc


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